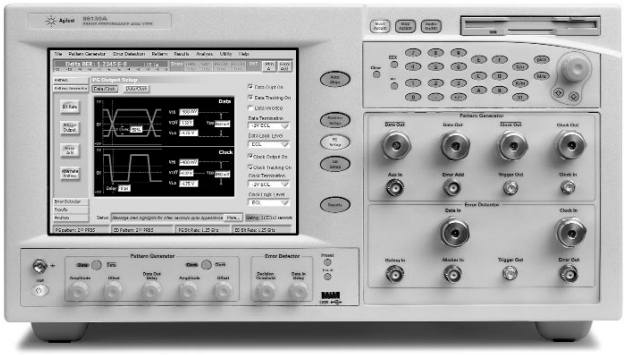
Agilent 86130A BitAlyzer® Enhanced Error Analysis Options

Product Overview



The Agilent 86130A BitAlyzer is a complete 3.6 Gb/s error performance analyzer. It has many features, including advanced error analysis, that will save you time. In addition to the suite of standard analysis features, described here are two additional analysis options that will give you greater insight.

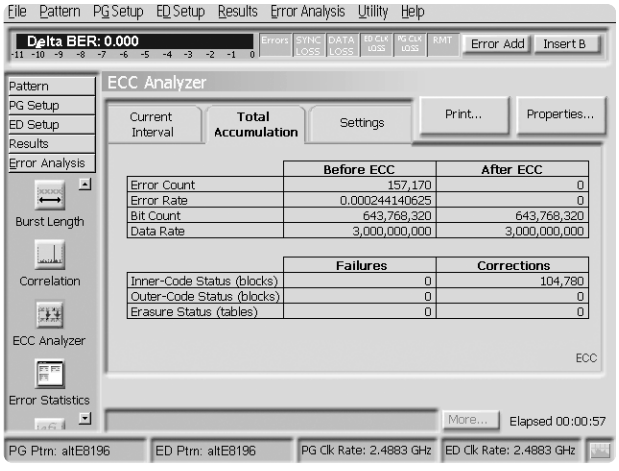
Option 86130A-200: Error Correction Coding Analysis

Using the precise bit error locations found by the 86130A BitAlyzer, map these onto a user defined block code error correction architecture such as Reed Solomon. Check the constraints imposed by the user defined correction and see which errors would have been corrected, and which would not. All of the other error analyses can then be used on the post-corrected data, enabling you to compare corrected and uncorrected performances. Play "what-if" games on your system without ever having to build hardware.

Previous computer-based techniques for correction simulation have often assumed random noise models for error distribution. You don't need to make guesses of how errors occur in your channel, you can now measure them precisely with your 86130A BitAlyzer. If your channel suffers from pattern sensitivity, or power supply noise, then these are the error locations that are presented to the corrector design that you have chosen. Use this captured information to stress your designs for accurate predictions of their effectiveness in the real world.

The 86130A supports two dimensions of error correction and three dimensions of error interleaving before the correction is applied. It also supports erasure processing where inner code failures can be used to flag outer code erasure thereby doubling your burst correction ability. Statistics are also maintained during analysis to give an ongoing monitor of the corrector effectiveness.

BitAlyzer is a registered trademark of SyntheSys Research, Inc.



Monitor the performance of your emulated corrector with the built-in statistics.

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Option 86130A-100: 2-Dimensional Error Mapping Analysis

Create an image on the display that represents the errors found on your data channel. Select a divider for the y-axis, such as a packet length or an amount of time. For some applications, this might have a physical interpretation such as the number of bits in a helical scan of a video cassette recording system. In such an example, you have a two dimensional mapping based on individual passes of the head across the tape in columns on the display, and all of the columns lined up next to each other representing the number of feet of tape.

In a similar way, examine long runs of error results, and quickly zero-in on areas that look interesting. Leaving a test to run overnight with a one second block size, for example, can be very revealing. With infinite panning and zooming, it is now possible to examine clusters of errors, and see structure such as bursts or other groupings.

A picture really is worth a thousand words–or more importantly, saved time.

Ordering Information:

Already have a BitAlyzer?
Option 86130A-100 upgrade kit: 86130-10007
Option 86130A-200 upgrade kit: 86130-10008

Additional Literature

86130A BitAlyzer color brochure (Agilent lit. #5968-8547E)
86130A BitAlyzer technical specifications (Agilent lit. #5968-8545E)

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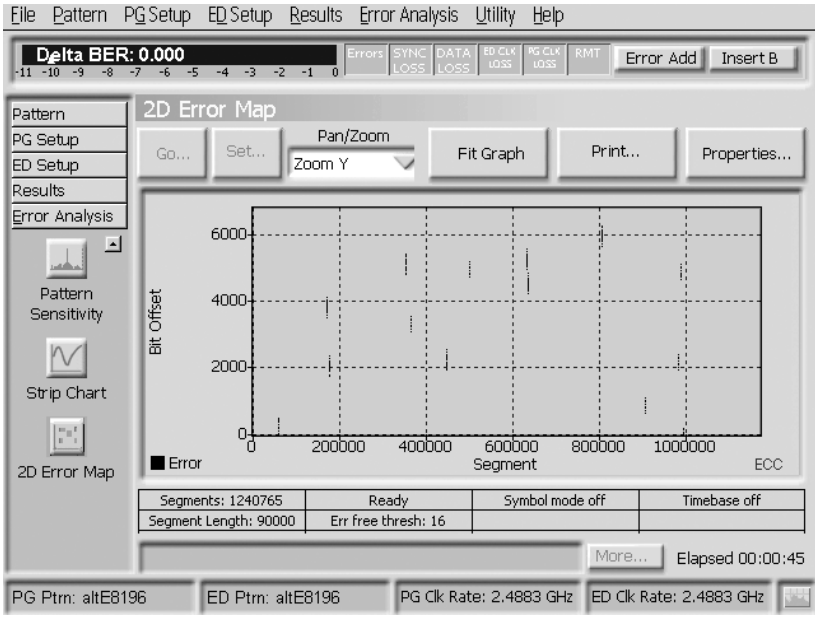

See your errors in more revealing ways.

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Product specifications and descriptions in this document subject to change without notice.

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